U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program

OMB No. 1660-0008 Expiration Date: November 30, 2018

# **ELEVATION CERTIFICATE**

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A - PROPERTY INFORMATION	FOR INSURANCE COMPANY USE
A1. Building Owner's Name IC Myrtle Beach, LLC	Policy Number:
<ul> <li>A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.</li> <li>3200 South Ocean Boulevard</li> </ul>	Company NAIC Number:
City State Myrtle Beach South Carolina	ZIP Code 29577
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc PIN# 446-00-00-0011, Springmaid Resort	.)
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Non-Residential	ential (Commercial)
A5. Latitude/Longitude: Lat. 33°39'24" Long. 78°55'12" Horizontal	Datum: ☐ NAD 1927 区 NAD 1983
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood A7. Building Diagram Number 6	I insurance.
A8. For a building with a crawlspace or enclosure(s):	
a) Square footage of crawlspace or enclosure(s)     410 sq ft	
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot	above adjacent grade 4
c) Total net area of flood openings in A8.b 400 sq in	
d) Engineered flood openings?   Yes  No	
A9. For a building with an attached garage:	
0 0	
a) Square footage of attached garage 0 sq ft	
<ul> <li>a) Square footage of attached garage  sq π</li> <li>b) Number of permanent flood openings in the attached garage within 1.0 foot above adjusted.</li> </ul>	acent grade0
a) Square lootage of attached garage	acent grade0
b) Number of permanent flood openings in the attached garage within 1.0 foot above adj	acent grade 0
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjuct)  c) Total net area of flood openings in A9.b sq in	
b) Number of permanent flood openings in the attached garage within 1.0 foot above adj. c) Total net area of flood openings in A9.b o sq in d) Engineered flood openings? Yes No	
b) Number of permanent flood openings in the attached garage within 1.0 foot above adj. c) Total net area of flood openings in A9.b 0 sq in d) Engineered flood openings? Yes No  SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INF B1. NFIP Community Name & Community Number  B2. County Name	ORMATION  B3. State  South Carolina
b) Number of permanent flood openings in the attached garage within 1.0 foot above adj. c) Total net area of flood openings in A9.b 0 sq in d) Engineered flood openings? Yes No  SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INF B1. NFIP Community Name & Community Number Horry County 450104  B4. Map/Panel Number Number B5. Suffix Date Date Date Date Date Date Date Date	ORMATION  B3. State South Carolina  Zone(s)  B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)  17
b) Number of permanent flood openings in the attached garage within 1.0 foot above adj. c) Total net area of flood openings in A9.b 0 sq in d) Engineered flood openings? Yes No  SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INF B1. NFIP Community Name & Community Number Horry County 450104  B4. Map/Panel Number B5. Suffix B6. FIRM Index Date County Panel Effective/Revised Date O8/23/1999  B5. Suffix B6. FIRM Index Date Community Panel Effective/Revised Date O8/23/1999  B6. FIRM Index Date O8/23/1999  B7. FIRM Panel Effective/Revised Date O8/23/1999  B8. Flood Date O8/23/1999  B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered Other/Source:  B11. Indicate elevation datum used for BFE in Item B9: NGVD 1929 NAVD 1988	B3. State South Carolina  Zone(s)  B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)  17  I in Item B9:
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# **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information fro	m Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.0 3200 South Ocean Boulevard	D. Route and Box No.	Policy Number:
City State Myrtle Beach South Carolina	ZIP Code 29577	Company NAIC Number
SECTION C - BUILDING ELEVATION INFO	RMATION (SURVEY RE	EQUIRED)
C1. Building elevations are based on: Construction Drawings*  *A new Elevation Certificate will be required when construction of the	Building Under Constru	ction* Finished Construction
C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V ( Complete Items C2.a–h below according to the building diagram spe Benchmark Utilized: 5280-E Elevation 8.11'  Vertical D	with BFE), AR, AR/A, AR/ cified in Item A7. In Puerto Datum: NGVD 1929	AE, AR/A1–A30, AR/AH, AR/AO.  Rico only, enter meters.
Indicate elevation datum used for the elevations in items a) through h		
Datum used for building elevations must be the same as that used for	rine BFC.	Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosur	e floor)8. 55	✓ Feet ☐ meters
b) Top of the next higher floor	24. 13	x feet meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A.	X feet ☐ meters
d) Attached garage (top of slab)	N/A	x feet meters
e) Lowest elevation of machinery or equipment servicing the buildin (Describe type of equipment and location in Comments)	g <u>24</u> . <u>13</u>	x feet meters
f) Lowest adjacent (finished) grade next to building (LAG)	11.3	x feet meters
g) Highest adjacent (finished) grade next to building (HAG)	12.5	x feet meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, inclusion structural support	ding 12. 1	x feet meters
SECTION D - SURVEYOR, ENGINEER, O	R ARCHITECT CERTIFI	ICATION
This certification is to be signed and sealed by a land surveyor, engineer, I certify that the information on this Certificate represents my best efforts statement may be punishable by fine or imprisonment under 18 U.S. Coo	to interpret the data availa le, Section 1001.	law to certify elevation information.  able. I understand that any false  Check here if attachments.
Certifier's Name License Numb	er	STATISTICS .
Nathaniel J. Pettit 28153		
Title President		
Company Name Pee Dee Land Surveying, LLC.		Place Seal Hete
Address 5103 Kates Bay Highway		
City State South Carolin	ZIP Code 29527	
Signature Date 08/15/2016	Telephone (843) 254-1812	
Copy all pages of this Elevation Certificate and all attachments for (1) comm	unity official, (2) insurance	agent/company, and (3) building owner
Comments (including type of equipment and location, per C2(e), if application C2.a is Main Elevator Shaft.  Item C2.e is Hot water heater servicing the building.  This building has 3 enclosures:  Main elevator shaft is 84sf. No Vents  Service elevator shaft is 84sf. No Vents  Stairwell enclosure & Fire Riser Room is 242sf, Elevation = 12.55' 4 Floor		are inches.
Main elevated floor elevation = 24.13'		

# **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corre	sponding information	from Section A.		FOR INSURAN	CE COMPANY USE
Building Street Address (including Apt., Unit, Su	ite, and/or Bldg. No.) or	P.O. Route and Bo	ox No.	Policy Number:	
3200 South Ocean Boulevard	1/		The state of		
City	State	ZIP Code	DE ME	Company NAIC	Number
Myrtle Beach	South Carolina	29577			
SECTION E – BUILDII FOR	NG ELEVATION INFO			REQUIRED)	
For Zones AO and A (without BFE), complete Ite complete Sections A, B,and C. For Items E1–E4 enter meters.	ems E1–E5. If the Certification, use natural grade, if av	cate is intended to vailable. Check the	support a measurer	LOMA or LOMR ment used. In Pu	-F request, erto Rico only,
E1. Provide elevation information for the following the highest adjacent grade (HAG) and the leavest grade (HAG) and	owest adjacent grade (L		w whether	the elevation is	above or below
<ul> <li>Top of bottom floor (including basement crawlspace, or enclosure) is</li> </ul>		leet	meter	s above or	below the HAG.
<ul> <li>Top of bottom floor (including basement crawlspace, or enclosure) is</li> </ul>		feet	meter	s above or	below the LAG.
E2. For Building Diagrams 6–9 with permanent	flood openings provided	in Section A Items	s 8 and/or	9 (see pages 1–2	of Instructions)
the next higher floor (elevation C2.b in	nood openings provided				
the diagrams) of the building is		feet	meter	s above or	below the HAG.
E3. Attached garage (top of slab) is		leet	meter	s above or	below the HAG.
E4. Top of platform of machinery and/or equipm servicing the building is	nent	feet	meter	s above or	below the HAG.
E5. Zone AO only: If no flood depth number is a floodplain management ordinance?	available, is the top of the es   No   Unkno	e bottom floor elev wn. The local offi	ated in acc	cordance with the certify this informa	e community's ation in Section G.
SECTION F - PROPERT	Y OWNER (OR OWNE	R'S REPRESENTA	ATIVE) CE	RTIFICATION	
The property owner or owner's authorized repre community-issued BFE) or Zone AO must sign h	sentative who completes here. The statements in	s Sections A, B, and Sections A, B, and	d E for Zo	ne A (without a Frect to the best o	EMA-issued or f my knowledge.
Property Owner or Owner's Authorized Represe	entative's Name		Migh		
Address	(	City	Sta	ate	ZIP Code
Signature		Date	Te	lephone	
Comments		100000000000000000000000000000000000000		This is the	NAME OF STREET
					Recorded To
					The same
				☐ Check h	nere if attachments.

# **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corre	esponding information from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, St. 3200 South Ocean Boulevard	uite, and/or Bldg. No.) or P.O. Route and B	ox No. Policy Number:
City Myrtle Beach	State ZIP Code South Carolina 29577	Company NAIC Number
SECTIO	ON G - COMMUNITY INFORMATION (OF	TIONAL)
engineer, or architect who is authoriz data in the Comments area below.)	Certificate. Complete the applicable item( ter meters.  en from other documentation that has bee ed by law to certify elevation information. (	and sign below. Check the measurement is signed and sealed by a licensed surveyor, indicate the source and date of the elevation
or Zone AO.	on E for a building located in Zone A (with G10) is provided for community floodplain	out a FEMA-issued or community-issued BFE) management purposes.
00.		
G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
G7. This permit has been issued for:	New Construction Substantial Improv	rement
G8. Elevation of as-built lowest floor (including of the building:	g basement)	☐ feet ☐ meters Datum
G9. BFE or (in Zone AO) depth of flooding at	the building site:	☐ feet ☐ meters Datum
G10. Community's design flood elevation:		☐ feet ☐ meters Datum
Local Official's Name	Title	
Community Name	Telephone	
Signature	Date	
Comments (including type of equipment and load	cation, per C2(e), if applicable)	
		☐ Check here if attachments.

## **BUILDING PHOTOGRAPHS**

## **ELEVATION CERTIFICATE**

See Instructions for Item A6.

OMB No. 1660-0008 Expiration Date: November 30, 2018

IMPORTANT: In these spaces, co	opy the corresponding information for	rom Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including 3200 South Ocean Boulevard	Apt., Unit, Suite, and/or Bldg. No.) or F	P.O. Route and Box No.	Policy Number:
City	State	ZIP Code	Company NAIC Number
Myrtle Beach	South Carolina	29577	

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

Photo One Caption Front View 08/15/2016



Photo Two

Photo Two Caption Rear View 08/15/2016

## **BUILDING PHOTOGRAPHS**

## **ELEVATION CERTIFICATE**

Continuation Page

OMB No. 1660-0008 Expiration Date: November 30, 2018

IMPORTANT: In these spaces, co	by the corresponding information for	rom Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including a 3200 South Ocean Boulevard	Apt., Unit, Suite, and/or Bldg. No.) or F	P.O. Route and Box No.	Policy Number:
City Myrtle Beach	State South Carolina	ZIP Code 29577	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.



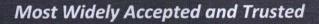
Photo One

Photo One Caption Elevator Shaft 08/15/2016



Photo Two

Photo Two Caption Stairwell & Fire Riser Room 08/20/2016





# **ICC-ES Report**

ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org

**ESR-3560** 

Reissued 09/2015
This report is subject to renewal 09/2017.

**DIVISION: 08 00 00—OPENINGS** 

SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

## REPORT HOLDER:

FLOOD FLAPS®, LLC.

2707 WATERPOINTE CIRCLE
MT. PLEASANT, SOUTH CAROLINA 29466

#### **EVALUATION SUBJECT:**

FLOOD FLAPS® FLOOD VENTS: MODELS FFWF12; FFNF12; FFWF08; FFNF08; FFWF05; FFNF05



Look for the trusted marks of Conformity!

"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"





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# **ICC-ES Evaluation Report**

ESR-3560

Reissued September 2015

This report is subject to renewal September 2017.

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS

Section: 08 95 43-Vents/Foundation Flood Vents

#### REPORT HOLDER:

FLOOD FLAPS®, LLC 2707 WATERPOINTE CIRCLE MT. PLEASANT, SOUTH CAROLINA 29466 (843) 849-8031 www.floodflaps.com info@floodflaps.com

#### **EVALUATION SUBJECT:**

FLOOD FLAPS® FLOOD VENTS: MODELS FFWF12; FFNF12; FFWF08; FFNF05; FFNF05

#### 1.0 EVALUATION SCOPE

#### Compliance with the following codes:

- 2012 and 2009 International Building Code® (IBC)
- 2012 and 2009 International Residential Code® (IRC)

#### Properties evaluated:

- Physical operation
- Water flow
- Weathering

#### 2.0 USES

Flood Flaps<sup>®</sup> are used to provide for the equalization of hydrostatic flood forces on exterior walls.

#### 3.0 DESCRIPTION

#### 3.1 General:

Flood Flaps® flood vents are engineered mechanically operated flood vents (FVs) that automatically allow flood waters to enter and exit enclosed areas. The FVs are constructed of ABS plastic which serves as the FV's housing, and a front grill that contains an anodized metal screen imbedded in polypropylene plastic. On contact with rising flood water, the grill will disengage from its secured position, allowing flood water and debris to flow through in either direction.

The sealed series models contain two rubber flaps that close the FV to the passage of air when using with conditioned areas or sealed crawl spaces. In the same manner as the grill, the two rubber flaps are pushed open by water pressure, allowing water and debris to flow

through the FV in either direction. See Figure 1 for an illustration of the Flood Flaps® FV.

#### 3.2 Engineered Opening:

The Flood Flaps® FVs comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 for a rate of rise and fall of 5 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Flood Flaps® FVs must be installed in accordance with Section 4.0.

#### 3.3 Model Sizes:

The Flood Flaps® FV model designations and sizes are as follows:

MODEL	WIDTH (in)	HIGHT (in)	DEPTH (in)
FFWF12 FFNF12	15 <sup>5</sup> / <sub>8</sub>	73/4	12
FFWF08 FFNF08	15 <sup>5</sup> / <sub>8</sub>	73/4	8
FFWF05 FFNF05	15 <sup>5</sup> / <sub>8</sub>	73/4	5

For SI: 1 inch = 25.4 mm.

The FFWF series include two rubber flaps for the prevention of air flow. The FFNF series omit the rubber flaps.

## 3.4 Ventilation:

Flood Flaps® FV models FFNF12, FFNF08, FFNF05, and FFNF02 have metal screens with ¹/₄ inch by ¹/₄ inch (6 mm by 6 mm) openings and provide 37 square inches of net free opening to supply natural ventilation for under-floor ventilation. Flood Flaps® FV models FFWF12, FFWF08, and FFWF05 have not been evaluated for use as openings for under-floor ventilation.

## 4.0 DESIGN AND INSTALLATION

Flood Flaps® FVs are designed to be installed into walls of existing or new construction. Installation of the FVs must be in accordance with the manufacturer's instructions, the applicable code and this report. Flood Flaps® FVs can be installed in wood, masonry and concrete walls up to a thickness of 12 inches (305 mm). In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, the Flood Flaps® FVs must be installed as follows:

 With a minimum of two openings on different sides of each enclosed area.

- With a minimum of one FV for every 220 square feet (20 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305 mm) above grade.

#### 5.0 CONDITIONS OF USE

The Flood Flaps<sup>®</sup> flood vents described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The Flood Flaps® FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern. 5.2 The Flood Flaps® FVs must not be used in place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

## 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated October 2013.

#### 7.0 IDENTIFICATION

The Flood Flaps models recognized in this report are identified by a label bearing the manufacturer's name, the model number, and the evaluation report number (ESR-3560).

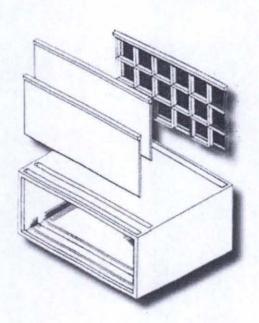


FIGURE 1-FLOOD FLAPS® FLOOD VENT



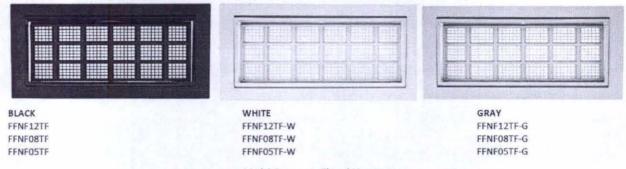
# Multi-

Block pier & Wood stud 220 sq ft 16" x 8" 15 5/8" x 7 3/4" x 5" D

# Purpose Series Flood Vents "UNMATCHED VALUE":

# **Looking for Unmatched Value?**

ICC Evaluation Report ESR-3560



Multi-Purpose Flood Vents

Flood Flaps® Multi-Purpose Series vents are FEMA compliant flood vents certified to provide flood protection and air ventilation. These models are perfectly designed for an enclosure or crawlspace in a flood plain that desires natural air while still providing efficient flood relief when necessary. The patented grill remains closed and secure until forced open by flood waters, allowing water to enter or exit the enclosed area. These automatic foundation flood vents are also FEMA/NFIP compliant. Flood Flaps Multi-Purpose Series flood vents are the most affordable ICC-ES certified flood vents available and perfect for owners looking to bring their existing structure or new construction into flood code compliance. Unmatched Value...an ICC-ES certified, engineered FEMA compliant flood vents covering 220 sq. ft. for far less cost.Unmatched Value!



FFNF12TF

Installation Type: Block with Brick Skirt Enclosed Area: 220 sq ft

Enclosed Area: 220 sq ft Rough Opening: 16" x 8"

Exterior Dimensions: 15 5/8" x 7 3/4" x 12" D



FFNF08TF

Installation Type: Enclosed Area: Rough Opening:

220 sq ft 16" x 8"

Stucco

**Exterior Dimensions:** 

15 5/8" x 7 3/4" x 8" D